

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

INDEXED

62.29

June 1913

INDEXED

Fruit and Ornamental Trees Shrubs and Plants

E. R. Lake



STAYMAN'S WINESAP
The Great Commercial Apple

THE GRIESA NURSERIES

1894
T. E. GRIESA, PROPRIETOR

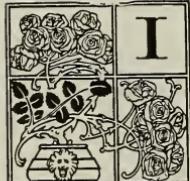
ESTABLISHED 1880

LAWRENCE, KANSAS



Mr. T. E. Griesa's Home.

To Our Patrons

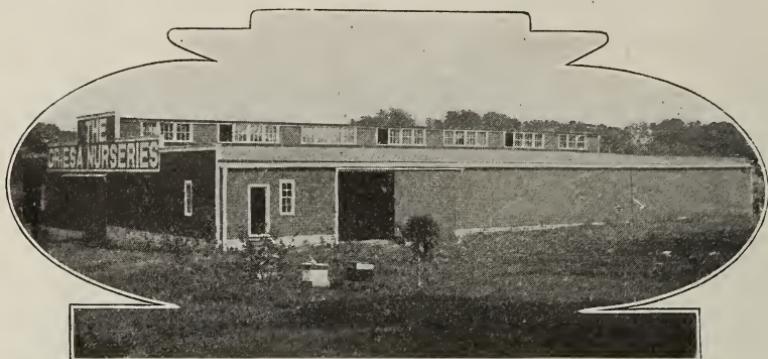


N PRESENTING THIS, our revised catalogue, we express our thanks to our many patrons for the confidence and patronage with which we have been favored these many years, and we assure them that we are now in better condition than ever to serve them.

OUR FACILITIES are unequaled, and in this connection it is incumbent upon us to say that the wants of our customers are much better served by our having the best equipped packing house in the West, enabling us, in all weather to take care of the work in the short season in which we have to do it. Situated as we are we have all the facilities of railroad, express, telegraph and telephone connections, which bring us into touch with our customers, however remote.

IT IS NECESSARY to emphasize the fact of location, as it shows our facilities for the full development of stock between the extremes of heat and cold, so that we are able to produce trees second to none in the world.

WE AIM TO KEEP fully abreast of all enlightened and cultivated people in the introduction of new and valuable varieties of fruit and ornamentals, accepting with pleasure everything that has real merit, and with equal readiness discarding and discontinuing the sale of worthless humbugs. By careful consideration of the wants of our trade and faithful attention to business we hope to continue to merit and receive a share of the patronage of lovers and buyers of choice fruits and ornamentals.



View of Large Storage Building.

R E M A R K S

This Catalogue Has been prepared with great care. The selection of varieties embraces all the latest and most prominent introductions, as well as the most popular and thoroughly proved older sorts. It will, we think, form a most efficient and competent guide to the professional or the amateur in the selection of the choicest Fruits or Ornamentals for the Garden, Orchard, Park or Lawn.

To the planter or purchaser of nursery stock at least three things are indispensable: First, varieties true to name; secondly, healthy, vigorous, well-matured trees or plants; and, thirdly, careful and judicious packing, without which all may be lost.

We give the most careful scrutiny to the propagation of varieties, endeavoring by all methods known to protect ourselves from error or imposition, and rejecting anything of which we have reason to feel suspicious. By such careful and consistent watching and attention we are warranted in offering our stock as pure and absolutely true to name.

Our soil being of a character best suited to produce the healthiest conditions of growth—that solid, firm texture of the wood, with abundant fibrous roots, so necessary to successful transplanting—we are enabled to offer the products of our nurseries with entire confidence to planters in all sections of the country.

We give our packing and shipping careful personal supervision, and to still further protect our patrons as well as ourselves against loss in this direction we employ the most skilled and competent workmen to assist us.

Through our system of securing the most of the new varieties that appear to have merit, and thoroughly testing them in our sample orchards, vineyards, berry fields and beds before listing them in our catalogue and recommending them to our patrons we have a tolerably good knowledge of what varieties are best adapted for this locality. Guided by our own experience from this plan we have in the revision of this catalogue dropped out a large number of varieties that have proved worthless with us, and added a number of new ones, some of which we can recommend to our patrons, while others have not been fully tested, but appear to be worthy of further trial.

GUARANTEE OF GENUINENESS

While the greatest diligence and care to have all trees, etc., true to label will be exercised mistakes may occur, and in such cases, upon proper proof, the



Some Happy Workers.

trees, etc., will be replaced free of charge, or the amount of money paid for them will be refunded; and it is mutually understood and agreed to between the purchaser and the seller that the guarantee of genuineness shall in no case make the nurseryman who sold the trees, etc., liable for any sum greater than that originally paid for the trees, etc., that proved untrue, nor for damage.

ADVICE TO PLANTERS

Select thrifty 2-year-old trees in preference to old or very large ones. The roots are more tender and fibrous, they bear transplanting better, and are far more apt to live. They can also be more easily trimmed and shaped to any desired form, and in the course of a few years will usually outstrip the others in growth.

PREPARATION FOR PLANTING

Plow and subsoil repeatedly, so as to thoroughly pulverize to a depth of 12 to 18 inches. When planting upon the lawn or grass plots remove the sod for a diameter of four or five feet, and keep this space well worked and free from weeds. Dig the hole deeper and larger than is necessary to admit all the roots in their natural position, keeping the surface soil and subsoil separate. Cut off broken and bruised roots, and shorten the tops to half a dozen good buds, except for fall planting, when it is better to defer top pruning until the following spring. If not prepared when your stock arrives "heel-in" by digging a trench deep enough to admit all the roots, and setting the trees therein as thick as they can stand, carefully packing the earth about the roots, taking up when required. Never leave the roots exposed to sun and air, and "puddle" before planting.

PLANTING

Fill up the hole with surface soil, so that after the earth is settled the tree will stand as it did when in the nursery, except Dwarf Pears, which should be planted deep enough to cover two or three inches the quince stock upon which they are budded. Work the soil thoroughly among the roots, and when well covered tramp firmly. Set the tree as firm as a post, but leave the surface filling (of poorer soil) light and loose. Never plant the tree deeper than it was in the nursery.

COMMERCIAL PLANTING

To those who have the ground and a suitable location we cannot too strongly urge the planting of commercial orchards. For a pleasant and healthful occupation, and for large and sure profits there is nothing to which a farmer can turn his energies with more satisfactory results. Forty, eighty or one hundred acres planted to apples and properly cultivated will not fail to make a fortune for those who give the matter their attention. So strongly are we impressed with this fact that we have already growing in young orchards more than 50,000 apple and peach trees, and each year finds us adding to the list.

Situated as we are in the center of the best apple belt in the world we have made commercial planting a special study for years, and we make a few suggestions to prospective planters:

Select as few varieties as possible of those that do best in your locality.

Plant young trees; those two years old are preferable.

Prepare your ground as for corn; keep well cultivated while orchard is young.

Plant the trees firmly and not too deep.

PLANT YOUNG TREES

We cannot too strongly recommend to our customers the procuring of young trees, especially for orchard planting, instead of selecting the largest that can be had to secure a more immediate effect. Young trees can be taken up with more perfect roots, and will sooner become established in a new location. They can also be more readily trained to any desired shape. The largest and most successful planters invariably select young, thrifty trees as the surest to give thorough satisfaction in the end.

For small grounds, or for street planting, where it is necessary to make a show as soon as possible, large trees are often desirable, and when handled with care should not fail to do well; but with the general planter the average loss will be much less, and both time and money will be saved if young trees are selected to commence with.

HOW TO WINTER TREES PROCURED IN THE FALL

The practice of procuring supplies of trees in the fall is becoming more and more general as each season demonstrates its wisdom. It is a more favorable time than the spring, because of the colder weather and the lighter pressure of business with nurserymen, the freighting companies and the planter. Even when fall planting is not desirable by reason of the severity of the climate, or from other cause, the stock may be procured in the fall, and thus be on hand ready for the opportune moment in the spring. To insure success you have only to get your trees before freezing weather and bury them in the following manner: Choose a dry spot, where no water will stand during the winter, and with no grass near to invite mice. Dig a trench, throwing out dirt enough to put a layer of roots well below the surface, and place the trees in it, inclined to an angle of 45 degrees or more. Widen the trench, throwing the soil on the roots and well up on the bodies of the trees now in position, then pack the earth closely and firmly around every root. This work cannot be too well done. Place another layer in the trench, leaning the tops on the others, and so on until all are in the trench; then finish by throwing up more soil until the tops of the trees are nearly or quite covered. It is also well to bank up the earth around the sides to insure more thorough protection. Care should be taken to fill solidly all the interstices among the roots, and to pack the earth closely about the roots in the trenches. When the work is done the tops should be well covered with waste hay or straw to protect them from drying winds. If at the time of heeling-in the ground does not contain sufficient moisture, water should be applied to prevent injury from severe drying. If any further information is needed do not hesitate to write us.

Apples

The first fruit, both in importance and general culture, is the apple. Its period, unlike that of other fruits, extends nearly or quite through the year. By planting judicious selections of summer, autumn and winter sorts a constant succession can be easily obtained.

There is no farm crop which, on the average, will produce one-fourth as much income per acre as will a good apple orchard. As it takes from six to eight years for an orchard to come into bearing some people hesitate to plant, regarding the time and expense as in a great measure lost.

The demand for fruit is steadily increasing. In addition to a wide home market a vast European demand is springing up, tasking the skill of the raiser and shipper in placing the finest specimens, through careful growing, selection and packing, before the European purchaser. Vast canning establishments utilize the surplus crops, and an immense foreign market is likely to spring up in the future for the best fruit, dried by the best means, at moderate rates, requiring far less risk and expense in trans-Atlantic conveyance.

There seems to be no limit to the profitable production of the apple. Take any particular year, and you cannot name another crop so reliable and so profitable as a well cared for Apple orchard. There is no reason to look for any change in this for many years to come. Even with farm products low and in little demand there has been no year when there was not a good market for choice apples at paying prices. The planting and proper care of increased fruit plantations would do much to relieve the farmer from the present financial difficulties that surround him. Numerous examples of successful Apple culture point the way to success. We may plant largely with every assurance of success if our plantations are properly cared for.

SUMMER APPLES

✓ **Carolina Red June.** Tree upright grower, early and abundant bearer. Fruit medium, oblong, surface smooth; dark red, with white ground; flesh white, tender, fine grained, juicy, acid; quality good; for table and market. June and July.

✓ **Duchess of Oldenburg.** A Russian Apple, and considered of great value farther north; here not often called for. Tree moderate grower and hardy; fruit medium size, surface smooth; waxy yellow, with stripes and splashes of red; flesh white, tender and juicy; sour and good for cooking.

✓ **Cooper's Early.** Size medium; color pale yellow, with faint blush on sunny side; flesh white, crisp, sprightly, mildly acid; a good cooking variety. Tree hardy, an early bearer and heavily productive.

✓ **Early Harvest.** The most popular summer Apple on our list. Tree healthy, vigorous grower and good bearer; fruit medium size, nearly round, somewhat flattened; surface smooth, clear waxy yellow, rarely blushed; flesh tender, juicy, acid to sub-acid, flavor good; quality best for table and kitchen. July.



Jonathan.

SUMMER APPLES--Continued

✓ **Sweet June.** Tree strong, upright grower, very productive; fruit small to medium, round, greenish yellow; flesh white or greenish white, fine-grained, tender; quality good; for table and kitchen. June and July.

✓ **Red Astrachan.** Another Russian Apple that is very popular with planters. Tree vigorous, upright and productive; fruit medium to large; surface smooth, marbled and striped on greenish yellow; flavor acid; for kitchen and market.

✓ **Yellow Transparent.** A Russian variety, new and promising in the north; tree hardy and moderately vigorous; an early and good bearer; fruit medium to small; skin clear white at first, becoming pale yellow when fully mature, often with a fine clear blush cheek; flesh white, tender, juicy, sub-acid, good. Early August.

FALL APPLES

✓ **Alexander.** Large, deep red or crimson; flesh yellowish white, crisp, tender, with pleasant flavor; very hardy. Mid. October.

✓ **Fall Pippin.** Tree a strong grower; not an early bearer; moderately productive when old; fruit large, globular; surface smooth, rich yellow, sometimes blushed; flesh yellow, very fine grained, flavor acid, quality best; for dessert, kitchen, market and drying. August to October.

✓ **Fameuse (Snow).** Tree hardy, vigorous and productive; a fine Apple of medium size, round; surface pale yellow, nearly covered with red, made up of stripes and splashes; flesh snowy white, tender, fine grained, juicy; flavor mild, sub-acid; quality good to very good; for dessert, kitchen, market.

✓ **Maiden's Blush.** This is the well-known and deservedly favorite fall Apple. Tree vigorous, upright grower, spreading, very productive; fruit medium to large, flat and very handsome; surface smooth, polished, pale waxen yellow, with rich blush; flesh white, fine-grained, juicy; quality good; for cooking, table and market. August and September.

✓ **Rambo.** Tree strong, upright grower, abundant bearer; fruit medium to small on old trees; round, somewhat flattened at the ends; surface striped and splashed with scarlet on greenish yellow ground; flesh greenish white, tender, juicy; flavor sub-acid; quality very good for table, excellent for cooking. September to December.

✓ **Wealthy.** Highly valued for its extreme hardiness at the far north. Tree thrifty grower and good bearer; fruit medium, roundish; skin smooth, oily, mostly covered with dark red; flesh white, fine-grained, juicy, sub-acid, good. September and October.

WINTER APPLES

✓ **Arkansas Beauty.** Of large size and handsome appearance; a beautiful light crimson in the shade, darker in the sun, with indistinct splashes and stripes over the whole surface of darker crimson; flesh fine-grained, whitish in color, and tinged with red and yellow; flavor a rich sub-acid; quality very good; tree a good grower and abundant bearer; season late; an excellent keeper.

✓ **Arkansas Black.** The tree is a beautiful, vigorous, upright grower, young wood very dark; fruit medium to large; fine flavor; beautiful dark color, almost black; flesh yellowish, slightly sub-acid, crisp. One of the best cooking Apples. January to July.

✓ **Banana.** Large, clear, pale yellow, with delicate pink blush, very attractive and of splendid dessert quality, carrying a suggestive banana flavor and a delightful aroma. Skin is very thin and flesh so tender that it bruises easily, thus impairing its shipping qualities. For fancy market we recommend it. Tree a good grower, bears annually, and generally yields moderate crops. Succeeds over a large territory.

✓ **Ben Davis.** More criticised and more extensively planted than any on the list; scarcely needs description. Everybody plants it for market, and nearly everybody for home use. They criticise its poor qualities and then buy more trees, taking care that a liberal proportion of each new order is Ben Davis. Tree thrifty, upright grower, of almost perfect shape; fruit large, round, sometimes variable in form; surface smooth, often polished yellow, covered and splashed bright red; flesh white, tender, juicy; flavor sub-acid, not rich; quality only good; for market and cooking. November to spring.



Stayman's Winesap.

WINTER APPLES—Continued

✓ **Gano.** Fruit is bright red on yellow ground, with no stripes; large, oblong, tapering to the eye; surface smooth, polished; dots minute; basin shallow, sometimes deep; eye large, cavity deep; brown in color; stem medium to long, core medium, seeds large. Tree very healthy, vigorous, hardy, having stood 32 degrees below zero without injury; a rapid grower; large and spreading in orchard; fruit-spurs numerous; shoots long, smooth, brown, with protuberances on the limbs like Ben Davis; an early, annual and prolific bearer. The tree much resembles Ben Davis. January to April.

✓ **Grimes' Golden.** This is one of the most popular Apples in cultivation. Tree strong, thrifty grower, with spreading branches; fruit medium or above, cylindrical, regular surface, yellow veined, russeted; flesh yellow, firm, very fine-grained, juicy; flavor sub acid; quality rich; for dessert, cooking and market.

✓ **Huntsman.** Tree very upright, thrifty grower and good bearer; fruit medium or above in size; color a rich yellow when fully ripe; shape round, considerably flattened at the ends; flesh pale yellow, somewhat coarse, juicy and rich, acid; very good for table and market. November to March.

✓ **Jonathan.** Tree of rather slender growth and spreading habit; fruit medium or above in size, round or oblong; surface very smooth, waxy yellow, often wholly covered with brilliant red; flesh whitish yellow, tender, very juicy; for dessert and cooking; also one of the most profitable market Apples; quality best; a general favorite. October and November.

✓ **Longfield.** One of the imported Russian varieties; a free, upright grower, early and abundant bearer; fruit medium to large, yellowish green, thickly covered with red stripes; a decided blush on the sunny side; rich, sprightly, sub-acid. December to March.

✓ **McIntosh Red.** An exceedingly valuable, hardy Canada sort. Medium size; nearly covered with dark red; flesh white, fine, very tender, juicy and refreshing. A good annual bearer of fair, handsome fruit. Resembles the Fameuse, but larger and more hardy and fully equal in quality to this standard sort. October and February.

✓ **Mann.** One of the newer sorts that promises to become popular. The tree is a strong, upright grower; fruit medium to large, roundish oblate; skin deep yellow when fully ripe, often with a shade of brownish red; flesh yellowish, half tender, juicy, mild, pleasant, sub-acid, good to very good. An early and annual bearer.

✓ **Minkler.** Fruit medium, roundish oblate, slightly conical; pale greenish yellow, striped and splashed with two shades of red; flesh yellowish, compact, moderately juicy, mild, pleasant, sub-acid; tree irregular grower, vigorous. January to April.

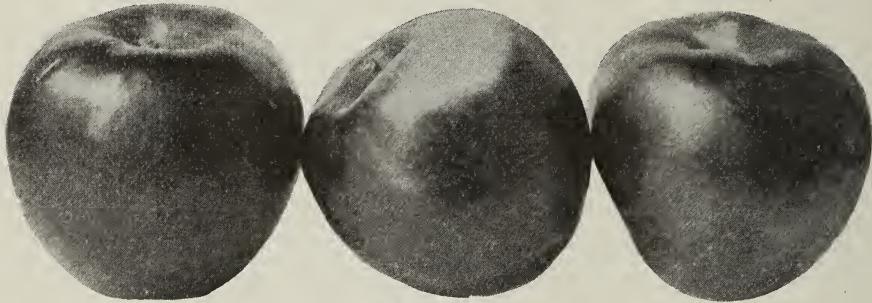
WINTER APPLES—Continued

✓ **Mammoth Black Twig.** Very large; dark red; vigorous grower. Was taken to the New Orleans Exposition and there named Mammoth Black Twig. Much interest was taken in the Apple during its exhibition there, and it is now a foremost Apple. The Winesap is its "parent." An improvement on the Winesap in being about one fourth larger; quality as good, if not better, than Winesap. Mammoth Black Twig is dark red, almost black. The tree holds its fruit until matured. The original tree, over fifty years old, is still vigorous and bearing. The young trees show great vigor, come to bearing very young, and are very productive. November to May.

✓ **Missouri Pippin.** Large, oblong, bright red, with numerous gray dots; very handsome and of fair quality; an early and very abundant bearer, and a very profitable orchard fruit; vigorous. December to March.

✓ **Northern Spy.** Fruit large, conical, flattened; skin greenish yellow, striped and shaded with purplish crimson, and covered with a thin white bloom; flesh white, fine-grained, tender, very juicy, a pleasant sub-acid. November and December.

✓ **Rawle's Genet.** Tree good grower, not so large as some; fruit medium, somewhat conical, regular; surface smooth, mixed and striped on yellow and green; flesh yellowish, crisp, fine-grained, juicy; flavor sub-acid; quality good to very good; for dessert, kitchen, market and cider. November to spring.



Reagon's Red.

✓ **Reagon's Red.** Sometimes called Black Ben Davis. This is one of the very popular winter sorts, as it is superior to Ben Davis or Gano. It is being planted largely in commercial orchards, where it is a very sure bearer, good keeper and an Apple of good quality.

✓ **Rhode Island Greening.** Tree strong grower, crooked, spreading, productive; fruit large, varying in shape from round to flat; surface somewhat rough and russeted; color dull green, becoming yellow at maturity; flesh very yellow, juicy, with rich acid flavor; quality very good; for table use. September to November.

✓ **Rome Beauty.** Tree thrifty, upright grower; fruit large to very large, roundish oblate, sometimes conical; surface smooth, pale yellow, striped and mixed with red; flavor sub-acid, not rich; quality good; desirable market fruit on account of its productiveness and fine appearance. November to January.

✓ **Salome.** Flesh whitish yellow, half fine, tender, mild, slightly aromatic; its hardness, long keeping, good quality, uniform size, and retention of flavor late into the summer will, no doubt, make it valuable for the west and northwest. The tree is as hardy as any of the Siberian crabs. January to May.

✓ **Spitzenburg, Esopus.** Medium to large; deep red; flesh yellow, crisp, sub-acid, high flavored, bears and grows well-transplanted to rich soil. November to April.

✓ **Stayman's Winesap.** A seedling of Winesap, originating at Leavenworth, Kansas, with the late Dr. J. Stayman. Dark, rich red, indistinctly striped, but stripe is more pronounced in specimens less highly colored. Flesh firm, fine-grained, crisp, juicy and very tender; rich sub-acid; quality best. Tree a stronger grower than Winesap, a drouth resister, and will thrive on thin soils where the old Winesap will starve; a more regular bearer, hangs longer, keeps

WINTER APPLES—Continued

as well, and in quality is far superior. As I have stated many times this Apple is coming to the front, and will soon be one of the leading commercial sorts.

✓ **Stark.** Tree strong grower, with spreading top, considered valuable as a long keeper and good market Apple; fruit large, greenish yellow, shaded and striped with red; flesh yellowish, moderately juicy, mild, sub-acid; quality good to best. November to Spring.

✓ **Sutton Beauty.** Fruit medium to large; roundish, with waxy yellow skin, striped with crimson; flesh white, tender, sub-acid, good quality; tree is a free, handsome grower and productive; a splendid keeper.

✓ **Talman Sweet.** Tree hardy and strong grower; fruit medium, nearly round, somewhat flattened; surface smooth yellow; flavor sweet, rich; flesh yellow and firm; for baking and dessert. October to December.

✓ **Walbridge.** Tree strong grower and productive; highly prized farther north for its extreme hardiness; fruit medium size; color pale yellow, shaded with red; flesh crisp, tender and juicy; quality good. December to Spring.

✓ **White Winter Pearmain.** Tree moderate grower, with spreading top; fruit medium, handsome when fair, but sometimes scabs badly; surface smooth, yellow, sometimes bronzed; flesh yellow, fine-grained, tender, juicy; flavor mild, sub-acid, very rich; quality best; for table, kitchen, market. November to January.

✓ **Willow Twig.** Tree good grower, branching and twiggy; good bearer; fruit globular; surface smooth, dull greenish yellow, marbled and striped dull red; flesh greenish yellow, juicy; flavor acid; quality only good; valuable for market and kitchen. November to spring.

✓ **Winesap.** An old favorite; one of the best. Tree vigorous, with spreading top; fruit medium, conical; surface smooth, bright or dark red on yellow ground; flavor rich, acid to sub-acid; quality nearly best; for table, market, kitchen, cider. Very desirable on account of its productiveness and general good quality.

✓ **Wolf River.** An Apple particularly adapted to the West on account of its extreme hardiness; very large and handsome; flesh whitish, breaking, pleasant, sub-acid; a good bearer. November and December.

✓ **York Imperial.** Generally known and popular with many of our most experienced orchardists. Tree moderate grower and productive; fruit large, lopsided; surface smooth; color mixed bright red on yellow ground; flesh yellowish, tender, juicy; flavor mild, sub-acid; quality very good; for market, table, kitchen. November till spring.

CRAB APPLES

The improvements in the varieties of the Crab Apple have kept pace with the other kinds of fruit. A few years ago it was regarded as fit only for cider, preserves and jelly, but there are varieties now that command a good price on the market for dessert purposes. Especially is this the case with the Whitney. Besides being useful these apples are also very ornamental when in bloom, and when loaded with their highly colored fruits.

✓ **General Grant** Tree a vigorous and upright grower; fruit large, red to very dark red; flesh white, tender, mild sub-acid, excellent for dessert; a free grower. October.

✓ **Hyslop.** Tree a moderate grower, making a beautifully shaped, thrifty tree; bears young; fruit large, nearly round, flattened at the ends; skin smooth; color dark rich red on yellow ground; flavor very good. One of the most beautiful fruits grown.

✓ **Martha.** A seedling of Duchess of Oldenburg which originated in Minnesota. Earlier than Transcendent; very ornamental as well as a fine fruit; bears in profusion every year. September and October.

✓ **Transcendent.** Tree strong grower, making a large, beautiful tree; an early and abundant bearer, perhaps the most valuable of this class; fruit large, round, skin smooth; color rich yellow, shaded with red; valuable for preserving and cooking, said to be one of the best for cider. August and September.

✓ **Whitney's No. 20.** Tree thrifty, upright grower; fruit large, skin smooth, striped and splashed with carmine; flesh firm, juicy, of pleasant flavor. August.

Pears

The cultivation of this noble fruit is rapidly increasing as its value is appreciated. The range of varieties is such that, like apples, they can be had in good eating condition from August until early spring. The melting, juicy texture, the refined flavor and the delicate aroma of the Pear give it rank above all other fruits except the grape. But the Pear, like most things highly desirable and valuable, cannot be had without attention, labor and skill. The relative prices of the apple and pear being about as one to ten show at the same time the superior value of the latter, and the greater skill required to bring it to perfection.

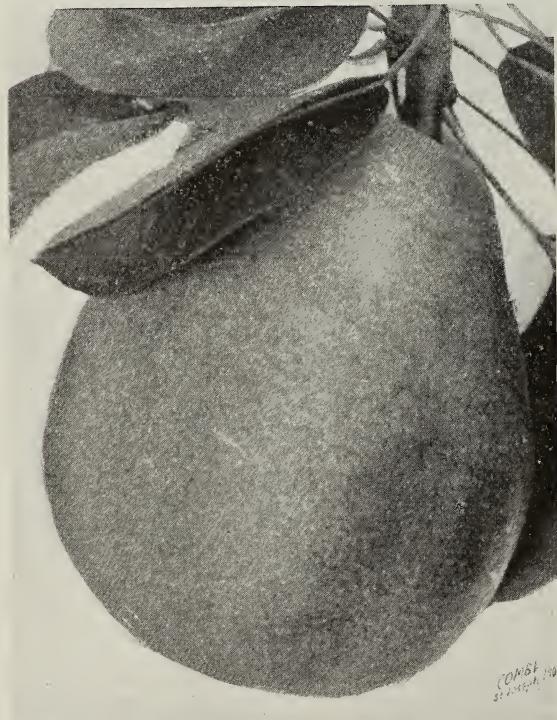
There seems to be but one drawback to the profitable cultivation of the Pear, either as Standard or Dwarf, and that is the "blight," which brings ruin to so many trees, and for which there is no known remedy. But Pear trees do not all blight, as we can well testify when we visit any fruit market in their season. The good price of Pears, the productive habit of the trees, their comparative freedom from other diseases and from insect enemies, make this a desirable fruit to plant in a moderate way for market; and the high quality and many ways in which it can be used to pleasure and profit make the planting of a liberal supply for home use scarcely less than a necessity. Standard trees are budded or grafted on seedling Pear roots; Dwarf trees are budded on Angers quince roots.

Standard Pears should be planted 20 to 25 feet apart. They will grow on almost any soil, provided the subsoil is not too wet. Whenever this is the case the ground should be thoroughly underdrained. In a very poor soil a moderate top dressing of manure in the fall will be of advantage. When a tree is assailed by the blight cut off the part affected several inches below all appearance of the disease.

Dwarf Pears should be planted 8 or 10 feet apart. At the time of planting, and every spring thereafter, they should be thoroughly pruned, shortening the current year's growth about one-half, aiming to form a round and well-proportioned head. The ground should be well cultivated and enriched by a top dressing of manure in the autumn, and well mulched in the spring. Pears grown on standards or dwarfs should never be allowed to ripen on the tree.

Gathering Pears. In order to retain the juice and best flavor summer Pears should be gathered at least ten days before they are ripe, and autumn Pears at least two weeks before; winter varieties as soon as the leaves begin to drop.

Duchess d'Angouleme.



PEARS—Continued

Thinning the Fruit. When the trees are heavily laden the fruit should be thinned when about one-third grown, else the fruit will be poor and the trees injured.

The Letters "S" and "D," used in the descriptions of varieties, indicate favorable growth, either as "Standards" or "Dwarfs," or both. Those designated as "moderate growers" are usually smaller trees.

✓ **Bartlett.** S. and D. An old favorite, more generally known and highly esteemed than any other sort. Tree thrifty, upright grower; fruit large, irregular, pyramidal; skin thin and smooth, clear yellow, sometimes with faint blush on the sunny side; flesh white, fine-grained, buttery, juicy, sweet; quality best. August and September.

✓ **Beurre d'Anjou.** S. and D. Tree good grower and bearer; fruit large, obtusely pyriform, sometimes nearly round; skin greenish sprinkled with russet, sometimes shaded with dull crimson; flesh whitish, melting, juicy. September to November.

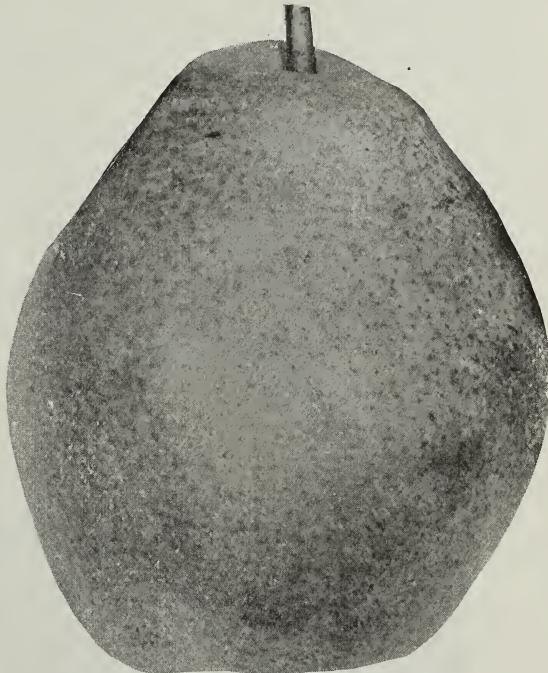
✓ **Clapp's Favorite.** S. and D. A splendid Pear, resembling Bartlett, ripening a few days earlier; a cross between that variety and Flemish Beauty. Fruit large; color yellowish green, marbled with red in the sun; vinous, melting, rich. One of the best summer Pears. August.

✓ **Duchess d'Angouleme.** D. Sometimes planted as a standard, but an especial favorite as a dwarf. Tree vigorous and productive; fruit of the largest size, with an uneven, somewhat knobby surface; skin dull greenish yellow, a good deal streaked and spotted with russet; flesh white, buttery and very juicy, with a rich, excellent flavor. September and October.

✓ **Flemish Beauty.** S. Tree generally preferred as a standard. Fruit large; skin a little rough, pale yellow, mostly covered with patches of russet, becoming reddish brown at maturity on the sunny side; flesh yellowish white, juicy and rich. September. Should be picked before it is fully ripe. One of the best.

✓ **Garber's Hybrid.** S. Is akin to and very much like Kieffer, but is larger, of better quality, and ripens two or three weeks earlier; is as yellow as an orange. Immensely productive, bears at three years from the nursery. Valuable market fruit.

✓ **Kieffen.** S. Tree one of the strongest growers, with rich, glossy foliage; is not recommended as a dwarf, but is highly recommended as less subject to blight than most others, though not in all cases free from blight. The Kieffer,



Rutter.

PEARS—Continued

by its good qualities of tree and fruit, has pushed its way to the front, so that it is today regarded as one of the most valuable kinds. Fruit large, golden yellow, blushed with red in the sun; flesh slightly coarse, juicy, melting. Tree a great bearer; fruit especially valuable for cooking and market.

Rutter. Fruit large and nearly globular; skin rough, greenish yellow, sprinkled with russet; flesh white, moderately juicy, nearly melting, sweet, slightly vinous; tree an exceedingly strong, vigorous grower, early and abundant bearer, and not subject to blight. October and November. Most desirable.

Seckel. S. and D. Tree a moderate grower, said to be less subject to blight than most varieties. Fruit small to medium, regularly formed; skin dull, yellowish brown, with lively red cheek; flesh whitish, buttery, very juicy and melting, with a peculiarly rich, spicy flavor. A regular and abundant bearer. August to October.

Sheldon. S. Tree moderate grower and good bearer; fruit medium size, or above; roundish oval; skin yellow or greenish russet, with a richly shaded cheek; flesh melting, juicy, with a brisk, vinous flavor. September and October.

Vermont Beauty. S. This beautiful and valuable Pear originated on Grand Isle, Lake Champlain; is very hardy, having endured extremely cold weather, and has never lost a bud from either cold or blight. Vigorous grower; free from leaf blight; an annual and abundant bearer. In quality the fruit approaches nearer that most delicious of Pears, the Seckel, than any other Pear on the market. The fruit is full medium size, yellow, covered on the sunny side with a bright carmine red, making it exceedingly attractive and handsome; flesh melting, rich, juicy and aromatic. Ripens with and after Seckel, though much larger in size and more attractive in appearance. Cannot fail to prove a general favorite and very valuable.

Wilder Early. S. Size medium; greenish yellow, with a brownish red cheek, and numerous dots; flesh white, fine-grained, melting, excellent; about three weeks earlier than Bartlett.

Worden-Seckel. A seedling of Seckel. Fruit medium size, borne in clusters, juicy, buttery, fine-grained, with a flavor and aroma fully equal to that of its parent, which it surpasses in size, beauty and keeping qualities. Ripens in October, but will keep in good condition till December.



A Pleasant View.

Cherries

✓ Cherry culture has been a success when proper attention has been given to the selection of varieties and their culture. The hardy, thrifty varieties of the Morello type may be freely planted with confidence of profitable results. Tree should be planted in a naturally dry soil, or the soil should be well drained, so water may not remain near the roots for any considerable time. The most successful varieties in general cultivation are:

✓ **Black Tartarian.** Very large; bright purplish black; half tender, juicy, very rich, excellent flavor; productive; vigorous. June 1.

✓ **Bing.** Fruit large, dark brown or black, very fine; a good shipping variety. It is one of the most delicious sweet Cherries and on the Pacific Coast considered one of the most profitable. Tree hardy and vigorous, foliage heavy. Seems to succeed east better than most sweets. This magnificent cherry should be followed by Lambert, which is later in ripening. Both are giant cherries, and with Royal Ann deserves to be planted commercially.

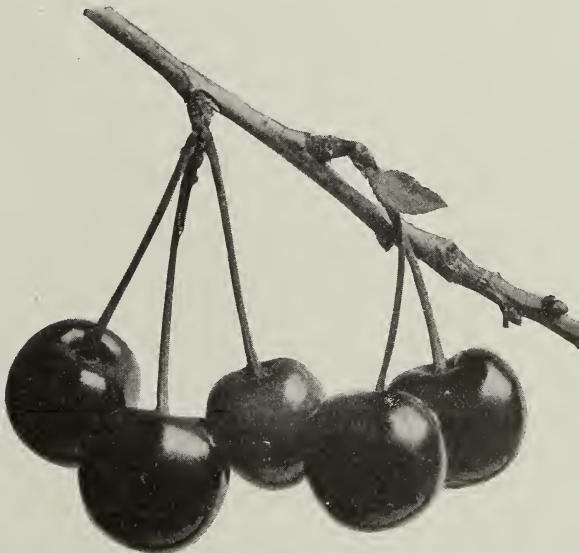
✓ **Dyehouse.** This variety partakes both of the Morello and Duke in wood and fruit. Early and sure bearer, ripens a week before Early Richmond, is of better quality and quite as productive. Free. May and June.

✓ **Early Richmond**
Everywhere the most popular. Tree strong, thrifty grower, making a large, symmetrical head; fruit medium size, dark red, melting, juicy, sprightly acid flavor, and especially valuable for cooking purposes; tree an early and abundant bearer. Season last of May and first of June.

✓ **English Morello.** Tree moderate grower, hardy; an early and great bearer; the most valuable of the late varieties. Fruit large, round; skin dark red, becoming nearly black when fully ripe; flesh dark red, tender, juicy, and of a pleasant sub-acid flavor when fully ripe. July.

✓ **Governor Wood.** One of the best sweet Cherries. Tree makes a fairly healthy growth. The same is true of Black Tartarian, and many others of the same class.

✓ **Lambert.** Another fine sweet, originating in Oregon, and one of the largest of all Cherries; dark, purplish red, turning almost jet black when ripe. Flesh firm, rich, juicy; tree rugged, a strong grower and an enormous bearer. The growing of the sweet Cherries, Lambert, Bing, Royal Ann, etc., is a great industry only fairly well begun. There is an immense market for the fresh fruit, and when canned or preserved the markets of the world are open to the producer.



Lambert.

CHERRIES—Continued

✓ **May Duke.** One of the best Cherries. Fruit roundish, obtuse, heart-shaped, growing in clusters, and when fully ripe of a rich, dark red; flesh redish, tender and melting, very juicy, and when fully ripe of a rich, excellent flavor. May and June 1.

✓ **Montmorency.** This is a Cherry of the Early Richmond class, some larger and about ten days later; a strong, upright growing tree and good bearer. By experienced horticulturists considered one of the most valuable varieties.

✓ **Ostheimer.** A fine late Cherry from Germany. It has done well in the West, and promises well as a late profitable sort. Fruit large, dark liver-colored when fully ripe; juicy, rich, almost sweet; tree a slender grower, almost hardy.

✓ **Royal Ann.** A magnificent, large, pale yellow sweet Cherry, with a bright red cheek; one of the very best of the sweets; a splendid shipper, and one of the finest for canning. To eat out of the hand it is unsurpassed. Flesh very firm and juicy; tree a rapid grower and an immense bearer. Cherry growing for the canners, to say nothing of the great markets for the fresh fruit, is becoming a great industry in the West, where Royal Ann is planted by the hundreds of acres along with Bing and Lambert. Cherry grows to perfection with less moisture than any other fruit. In Oregon some of the finest cherries are grown where the annual rainfall is only twelve inches, mostly in winter. The moisture is conserved by intensive cultivation—the system we practiced years ago in Cherry growing on the plains of Colorado.

✓ **Wragg.** Originated in Iowa. Medium to large; stem long; dark purple when fully ripe. Well adapted for the high latitude and prairie regions of the northwest. July.

Plums

Diseases and Enemies of the Plum. The prevalence of the disease of the Plum commonly known as the "black-knot," which has so much discouraged people in the Eastern States from giving to the plum its merited share of attention, has as yet done little damage west of the Mississippi River, but its appearance should be guarded against, and its ravages prevented by keeping the trees in a healthy condition, which is done by good cultivation and removing the knot by amputation on its first appearance. Nothing is more favorable to the growth of the black fungus or knot than neglect. But the great enemy of the Plum is the insect known as the curculio, a small, dark brown beetle, which punctures the fruit in depositing its egg, from which is hatched the destructive grub that causes the fruit to drop prematurely and rot.

Two ways of destroying the Curculio and saving the crop of fruit are recommended: (1) Spread a large sheet, prepared for the purpose, under the tree, and then jar the tree so as to shake down all fruits that have been stung, as well as all the curculios; destroy both insects and stung fruits. Begin to do this as soon as the blossoms fall, and keep it up daily, or at least tri weekly, until the fruit is half grown. The morning is the best time to do this, when the insect is chilled and stupid. (2) the best remedy, and the one generally adopted now, is doubtless the spraying of the trees, directions for which are given on second page of cover of this catalogue. If those who really desire to grow fine crops of this most delicious fruit will try either of these systems and follow it up rigidly they will be successful.

✓ **Abundance.** Medium to large; round, with pointed apex; skin greenish yellow ground, overlaid with dull purplish carmine; flesh light greenish yellow, juicy and sweet, with a touch of sub-acid and slight apricot flavor; cling; quality best; pit small; strong growing, upright, very prolific. Abundance has been, perhaps, more widely and extensively planted throughout the country

PLUMS—Continued

than any other of the Japanese Plums. It is one of the most popular and profitable early sorts in the Plum-growing sections of the North.

**Burbank.**

✓ **Damson.** Fruit small, oval; skin purple, covered with blue bloom; flesh melting and juicy, rather tart; separates partly from the stone. September.

✓ **Fellemburg.** (French or Italian Prune). A fine late Plum; oval, purple; flesh juicy and delicious; parts from stone; fine for drying. Tree a free grower and very productive. September.

✓ **German Prune.** A large, long, oval variety, much esteemed for drying; color dark purple; of very agreeable flavor. September.

✓ **Gueii.** Fruit very large; deep bluish purple; covered with thick bloom; flesh yellowish green, coarse, sweet and pleasant. Great bearer and very early; tree a hardy and rapid grower. This new variety is regarded as very valuable for market. First to middle of September.

✓ **Lombard.** Perhaps the best of the European varieties now in cultivation. Tree vigorous, hardy and productive; fruit of medium size, roundish-oval, slightly flattened at the ends; skin delicate violet-red, paler in shade; flesh deep yellow, juicy and pleasant. August.

✓ **Red June.** A very handsome Plum about a week earlier than Abundance. By all odds the best Japanese Plum, ripening before Abundance. Medium to nearly large size, deep vermillion red, with handsome bloom and very showy; flesh light lemon-yellow or whitish, firm and moderately juicy, very slightly sub-acid to sweetish, of good, pleasant quality; pit small; tree upright, spreading, vigorous and hardy, and as productive as Burbank.

✓ **Satsuma.** Fruit medium to large; broadly conical, with a blunt, short point suture very deep; skin very dark and dull red all over, with greenish dots and an under-color of brownish-red; firm, very juicy, quality good; cling; flesh so firm and solid as to enable it to be kept long in fine condition after being picked. We are each year more and more impressed with its great value as a market Plum. It is excellent for preserving, and a splendid keeper for the retail trade. It succeeds in many sections, and where it does succeed it is one of the most desirable.

✓ **Shipper's Pride.** This Plum originated in northwestern New York, near the shore of Lake Ontario, and has never been known to freeze back a particle in the severest winters. Size large; color dark purple; flesh firm and excellent. September 1.

✓ **Wickson.** New. A remarkably handsome and very large deep maroon-red Plum of the Kelsey type. Long-cordate, or oblong-pointed; flesh firm, deep amber-yellow, clinging to the small pit. There is apt to be a hollow space about the pit, as in Kelsey. Of first quality; an excellent keeper. Cross of Burbank with Kelsey, Burbank furnishing the seed.

✓ **Wild Goose.** The most popular Plum with some fruit growers. Tree a vigorous, upright grower; fruit medium to large, rich, golden yellow, richly shaded with red; flesh yellow, juicy; flavor rich and good.



Crosby.

Peaches

Peach trees should be planted 16 or 18 feet apart. To secure healthy, vigorous and fruitful trees and fine fruit the following points should be well attended to: ((1) Keep the ground clean and mellow. (2) Keep the heads low—the trunk should not exceed three feet in height. (3) Give them an occasional dressing of wood ashes; soap suds also are good. (4) Prune every spring, shortening the shoots of the previous year's growth. This keeps the head round, full and well furnished with bearing wood. Cut weak shoots back about one-half, and strong ones about one-third, but see that there is left a sufficient supply of fruit buds. Sickly and superfluous shoots should be cut out clean. The fruit is borne on wood of last season's growth, hence the necessity of keeping up a good supply of vigorous annual shoots all over the tree. Young trees should be well mulched every spring.

✓ **Arkansas Traveler.** Medium size, round, shaded with red; flesh melting, splendid in quality. Ripens a trifle earlier than Alexander, which it much resembles.

✓ **Alexander Early.** Large, well-grown specimens measure 8 inches in circumference; handsome and regular in form, with deep maroon shade, covered with the richest tint of crimson; rich and good in quality, with a vinous flavor; adheres to the stone; should remain on the tree until fully ripe. Late June.

✓ **Carman.** The best we consider none too good. Think of an Elberta in size, appearance and quality, ripening in season with Early Rivers, or 12 days after Alexander. Practically frost, rot and curculio proof; vigorous, prolific, of fine appearance and flavor, and with ability to carry in good order from Texas to New York. Such is Carman.

✓ **The Champion.** Fruit large, beautiful in appearance; flavor delicious, sweet, rich and juicy; skin creamy white, with red cheek; freestone. The peculiarity of this great acquisition is its hardiness. It stood a temperature of 18 degrees below zero in the winter of 1887-8, and produced an abundant crop the following season; and again in 1890 produced a full crop, when the Peach crop was a universal failure. August 15.

PEACHES—Continued

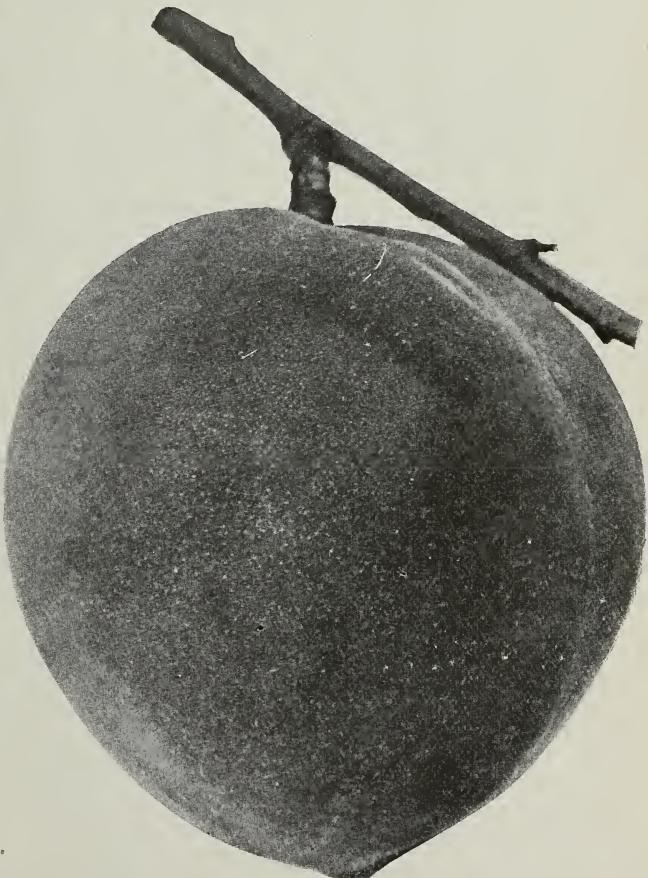
✓ **Crawford's Early.** This beautiful yellow Peach is highly esteemed for market purposes. Fruit very large, oblong; skin yellow, with fine red cheek; flesh yellow, juicy, sweet and excellent; productive, free. July 1.

✓ **Crawford's Late.** Fruit of the largest size; skin yellow, or greenish yellow, with dull red cheek; flesh yellow; productive; one of the best; free. Late August and September.

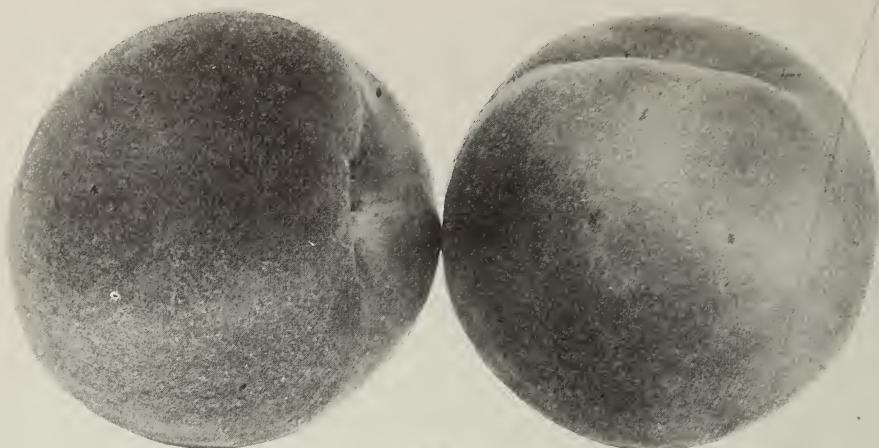
✓ **Crosby.** Medium size, roundish, with distinct seam on blossom end; skin light golden yellow and very downy; flesh bright yellow and rather firm. Ripens between Early and Late Crawford. Tree of rather dwarfish habit. Has won special favor on account of great hardiness. A recent introduction that has attracted very wide attention on account of its disposition to produce good crops in "off years," when other varieties usually fail.

✓ **Elberta.** Very large and well colored; all things considered, the finest yellow freestone in cultivation; no one can go amiss by planting it. Fruit perfectly free from rot; one of the most successful shipping varieties. August 20.

✓ **Fitzgerald.** Originated on the north shore of Lake Ontario, and in that cold region the original tree has borne five successive crops. Large orchards are being planted in Canada; if it succeeds as well in other sections it will prove one of the most valuable varieties ever produced. One of the best posted growers in Michigan says of it: "Fitzgerald showed fruit on one-year-old trees. I am most favorably impressed with it; as large or larger than Crawford's Early, with the smallest pit I ever saw and the most brilliant color. I am going to set 1,000 trees in the spring. It is of Crawford type and color, grows similar to it, and ripens between Early and Late Crawford. The flesh is of a rich, deep yellow, and very high character. Certainly a very fine thing; went through last winter with a smaller percentage of dead buds than anything else in my orchard, standing alongside of Crosby."



Champion.



Fitzgerald.

PEACHES—Continued

✓ **Family Favorite.** Free; seedling of Chinese Cling, of better color; clear waxen complexion, with blush; large, firm, valuable for shipping, canning or drying; prolific. Late July.

✓ **Greensboro.** The largest and most beautifully colored of all the early varieties. Double the size of Alexander, ripening at same time. Parts clear from seed when fully ripe. Flesh white, juicy and good.

✓ **Globe.** An improvement on Crawford's Late. Fruit large, globular, rich golden yellow, with a red blush; flesh yellow, juicy. August.

✓ **Foster.** Large; deep orange-red, becoming very dark red on the sunny side; flesh yellow, very rich and juicy, with subacid flavor; earlier than Early Crawford; very handsome. The originator says that the fruit always sells at a fancy price.

✓ **Heath Cling.** Downing calls this Peach "The most successful and delicious of all late clingstones." Tree vigorous and moderately productive; fruit very large, and narrowing to both ends; skin downy, cream-colored, white with faint blush in the sun; flesh greenish white, very tender and melting, juicy, with the richest, highest flavor; quality very best. September.

✓ **Lemon Cling.** Large, oblong, having a swollen point similar to a lemon; skin yellow, with red cheek; flesh yellow, firm, juicy and sweet; tree a fine grower. August.

✓ **Lemon Free.** Almost lemon-shaped, pointed at the apex; color a pale lemon-yellow when ripe. Quite large, the finest specimens measuring over 12 inches in circumference; of excellent quality; ripens after Late Crawford; is immensely productive.

✓ **Mayflower.** A new variety of the greatest merit. In color it is practically red all over, even before it is ripe enough to ship. It is the earliest Peach known, and therefore extremely valuable as a market variety. A strong, thrifty grower and an abundant bearer.

✓ **Mountain Rose.** A freestone of medium size. Has a good reputation. White, mottled with red; flesh white, stained at the stone; sweet and juicy. Good for all purposes, especially as an early market Peach. Mid-August.

PEACHES—Continued

✓ **Old Mixon Cling.** Large, pale yellow, with red cheek; juicy, rich and high flavored; one of the best clingstone Peaches. September.

✓ **Old Mixon Free.** Large, pale yellow, with deep red cheek; tender, rich and good; one of the best. September 1 to 15.

✓ **Salway.** Fruit large, roundish, deep yellow, with a deep, marbled brownish red cheek; flesh yellow, firm, juicy, rich and sugary. A new English variety, and a late showy market sort. Freestone. September 30.

✓ **Smock Free.** Fruit large, oval; skin orange yellow, mottled with red. A good market sort. September 15.

✓ **Sneed.** The most remarkable early Peach yet introduced. It ripens a week to ten days earlier than Alexander, and belongs to an entirely different type from Alexander; very distinct in tree and fruit, belonging to the Chinese Cling type; size medium; color white, with flush on cheek.

✓ **Stump the World.** Very large, roundish; skin white, with a bright red cheek; flesh white, juicy and good. Late September.

✓ **Triumph.** Ripens with Alexander, blooms late, has large flowers, and is a sure and abundant bearer; the tree makes a very strong growth, bears young and yields abundantly. The fruit is of large size, with a very small pit; skin yellow, nearly covered with red; dark crimson in the sun; flesh bright yellow, free when fully ripe, of excellent flavor; the fruit is a good shipper, and in quality is far superior to anything that ripens anywhere near its season.

✓ **Wager.** Large; yellow, splashed with red; flesh yellow, juicy and of good flavor. While high excellence in quality cannot be claimed for Wager, the tree has such remarkable vigor and vitality that it is not only an abundant, but an unusually regular bearer. Freestone. August 31.

✓ **Wonderful.** Originated in New Jersey; large to very large, uniform in shape and size, color rich golden yellow, overspread with carmine and crimson; flesh yellow, highly flavored and firm, bright red at pit, which is small and parts freely from the flesh. Ripens in October, and keeps well.

Apricots

✓ **A delicious fruit of the Plum species,** valuable for its earliness. It is liable to be attacked by curculio, and requires the same treatment as the plum; ripens in July and August.

✓ **Superb.** This is without question the best Apricot now being offered. It is a chance seedling from a Russian seed. Its points of excellence are in the magnificent tree, which is large and spreading, with broad, glossy leaves. It is perfectly hardy, and in productiveness has no superior. In quality it is better than Early Golden. Color a beautiful yellow with slight blush; flesh firm and solid. We have the original tree, which has borne regular crops since 1890. One of its many desirable traits is its long season, covering a period of three weeks. If we are asked if it has any weak points we would answer emphatically No. To all lovers of Apricots (and who is not?) we would say plant the Superb; plant it now. An eminent authority speaks of the Superb as follows: "Superb, a hardy seedling from Lawrence, Kansas, where we saw it two years in full fruit, has produced more fruit of larger size and better; most superb quality than any other, native or foreign." Better and more constant bearer than any one hundred others. Exhibited at the Nurserymen's Convention,

APRICOTS—Continued

where its exquisite quality, in comparison with others, was conceded by all. Superb, raising the average in size and quality of this excellent fruit, is worthy of extensive cultivation. Some eastern firms would make fortunes out of it.

✓ **Moorpark.** One of the largest. Orange, with red cheek; firm, juicy, with a rich flavor; very productive. August.

✓ **Early Golden.** Small; pale orange; juicy and sweet; hardy and productive. July 1.

✓ **Alexander.** Large, oblong; yellow flecked with red; flavor sweet and delicate; one of the best. July 1.

✓ **Alexis.** Origin Russia; tree strong, fruit large. Yellow, with red cheek; very sweet and of rich flavor. Bears well if given warm location. Mid-July.

✓ **J. L. Budd.** Large; cheek red; sweet, juicy, extra fine. The best late variety. August 1.

Nectarines

A most delicious, smooth skinned fruit, which thrives wherever peaches will grow, but it is liable to be stung by the curculio, and requires the same treatment as the plum.

✓ **Boston.** Large, handsome, oval in shape; bright yellow, with deep red cheek; flesh yellow to the stone, with a good, pleasant, but not very high flavor. Ripens in the early fall.

✓ **Breda.** A splendid large variety of exquisite flavor. Exquisite creamy white, with pale blush. Tree a vigorous grower and very prolific.

Select Quinces

✓ **The Quince** is attracting a great deal of attention as a market fruit. The tree is hardy and compact in growth, requiring but little space; productive, gives regular crops, and comes early into bearing. The fruit is much sought after for canning for winter use. When put up in the proportion of about one quart of quinces to four of other fruit it imparts to them a most delicious flavor. It flourishes in any good garden soil kept mellow and well enriched. Prune off all the dead and surplus branches, and thin out the fruit if bearing too freely.

✓ **Apple or Orange.** Large, roundish, bright golden yellow; cooks tender and is of excellent flavor; valuable for preserves or flavoring; very productive; most popular and extensively cultivated variety. October.

✓ **Champion.** A new variety, originated in Connecticut, where it is exciting marked attention. The tree is described as a strong grower, a prolific and constant bearer; fruit averages larger than the Orange, more oval in shape, quality equally fine, and a longer keeper.

✓ **Missouri Mammoth.** The largest Quince in cultivation. Brought into notice in the vicinity of Kansas City, Missouri, where it is fruited extensively, and is attracting great attention on account of its being large in size, perfect in shape, very rich and aromatic; tree vigorous, productive, an early bearer and free from blight.

Grapes

Almost every one can find room for from six to a dozen or more Grape vines. They can be trained up the side of any building or over a garden fence, but the best and cheapest way to grow them, either in small or large quantities, is on a wire trellis.

Work the ground deep for Grape vines, and plant a little deeper than they were in the nursery. Make the rows 8 feet apart and plant vines 6 to 8 feet apart in the rows. Some of the tender varieties would be benefited by laying the vines flat on the ground during the winter, with a light covering of earth or litter.

✓ **Brighton.** Our experience with the vine and fruit of the Brighton has convinced us more and more thoroughly of its superiority as a family Grape. Its remarkable vigor and hardiness of vine, large, compact bunches, rich wine shade of the ripened berry, delicate skin, tender, almost seedless pulp, sugary juice and rich flavor are combined qualities that are not united to such a degree in any other sort with which we are acquainted. It ripens a week or ten days before the Delaware, and bears most abundantly; having thick, large foliage, it is enabled to withstand the heat of the summer, and being a vigorous grower it exhibits extreme hardiness, and is enabled to endure the winter in extreme localities. We have no hesitation in commending this sort especially as a standard variety for the vineyard or garden.

✓ **Catawba.** Well known as the great Wine Grape of Ohio, Kentucky, etc. Bunches large and loose; berries large, of a coppery red color, becoming purplish when well ripened; two weeks later than Isabella. Where not subject to rot still holds its own as one of the best varieties.

✓ **Concord.** A popular variety, universally healthy, vigorous and productive; flesh somewhat buttery, moderately juicy and sweet; bunch large, nearly black, with bloom; early. Much is said about some Grape to take the place of Concord, its poor quality, etc., but the fact is generally recognized that the man who plants and cares for Concord vines will get bountiful crops of Grapes, and if they are allowed to remain on the vines until fully mature the quality is excellent. No other Grape can be planted with the confidence that is felt in the Concord.

✓ **Delaware.** Holds its own as one of the finest Grapes. Bunches small, compact, shouldered; berries rather small, round; skin thin, light red; flesh very juicy, without any hard pulp, with an exceedingly sweet, spicy and delicious flavor; vines moderately vigorous, very hardy and productive; ripens two weeks before Isabella.



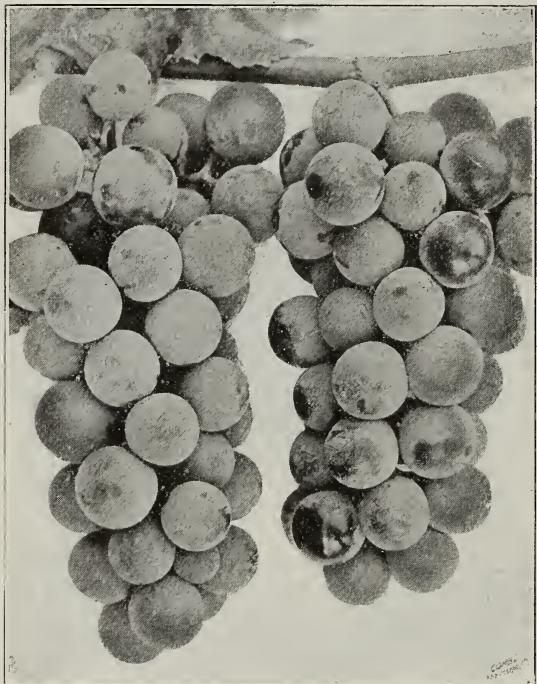
Niagara.

GRAPES—Continued

✓ **Early Ohio.** Briefly, its points of merit are extreme earliness, hardness and productiveness; the berry is black, smaller than Concord, firm in texture; the vine is thrifty, a strong, rapid grower and an abundant bearer. Its exceeding earliness makes it a decided acquisition.

✓ **Martha.** Seedling of Concord, which it resembles in growth and hardiness. Bunch of good size, and berry large; pale green or light color; sweet, juicy and sprightly.

✓ **Moore's Diamond.** A most desirable new white Grape, originated by Jacob Moore of Brighton, New York. A seedling of the Concord, fertilized with the Iona. Bunch large; berry large and nearly free from pulp, which makes it almost transparent when held up to the light; quality excellent; strong, vigorous grower, hardy and productive. Ripens a few days before Concord.



Worden.

which disappears when fully ripe; vine vigorous, healthy and productive; ripens with Concord.

✓ **Pocklington.** Seedling from Concord. The vine is thoroughly hardy, both in wood and foliage; is a strong grower, never mildews in vine or foliage. This is called a white Grape, but the fruit is a light golden yellow, clear, juicy and sweet to the center, with little or no pulp; bunches very large, sometimes shouldered; berries round, very large and thickly set; quality, when fully ripe, superior to the Concord. Ripens with the Concord.

✓ **Worden.** Seedling of Concord, which it greatly resembles in appearance and flavor, but the berries are larger. The fruit is said to be better flavored, and to ripen several days earlier. These qualities will give it the foremost rank among native Grapes.

✓ **Moore's Early.** Seedling of Concord, combining the vigor, health and productiveness of Concord; ten days earlier than Hartford; in quality hardly to be distinguished from Concord. This Grape has taken the first prize at the Massachusetts Horticultural Society each year since 1872, when first exhibited, and the \$60 prize of same society for the best new seedling in the fall of 1877. A valuable acquisition. Bunch large, berries very large, black.

✓ **Niagara.** Bunch medium to large, compact, sometimes shouldered, being large, roundish, uniform; skin thin but tough, pale green at first, changing to pale yellow when fully ripe, with a thin, whitish bloom; flesh slightly pulpy, tender, sweet; before it is fully ripe it has a musky odor.



Senator Dunlap.

Small Fruits

These may everywhere be successfully cultivated, and yield large returns at comparatively small expense. They should have a place in every garden. Since the introduction of self-sealing jars and cans they can be had throughout the year almost as fresh as when gathered. If any thoughtful farmer will figure up the returns from a berry patch as compared with one of his heavy crops by area he will be convinced as to the profits.

STRAWBERRIES

The ground should be prepared the same as for other crops; if not already rich make it so by manuring. Mark out the rows the desired width, and set plants 12 to 18 inches apart in the rows. If set 12 inches apart in rows of 4 feet apart an acre will require 10,890 plants, same as if set 16 inches in rows 3 feet apart. In early winter, when the ground is frozen, cover the whole with long straw, which should not be removed from the plants in the spring, but allowed to remain on the ground as a mulch, to keep the berries clean the next summer.

Varieties marked P fertilize with Jessie, or other staminate variety.

✓ **Aroma.** Large, roundish, conical; bright scarlet, moderately firm, fair quality; plant vigorous and very productive. A very valuable late sort for home use or near market.

✓ **Captain Jack.** A most vigorous grower healthy and productive. Berries large, handsome and solid.

✓ **Senator Dunlap.** A wonderful berry in vigor of plant and yield of fruit, even under careless culture. The fruit is in many instances enormous, and the average is large and handsome. It is exceedingly productive and very valuable for a nearby market. Mid-season. Perfect bloomer.

✓ **Splendid.** One of the handsomest Strawberries; rich in quality, and when the season is favorable very productive.

✓ **Warfield.** Possesses beauty, firmness, earliness, good flavor, productivity. Is not immensely large, but quite satisfactory.

PLANT STRAWBERRIES IN THE SPRING.

RASPBERRIES

One of the choicest of the small fruits, coming into use as the strawberry season ends. Nothing can be more refreshing than a dish of Raspberries. Should be planted 4x6 feet apart in a deep soil; one that will retain moisture well in a drought. In training allow only a few canes to grow from each plant, cutting away all suckers, to throw the strength into the stalk for bearing. All old canes should be removed when the bearing season is over.

BLACK-CAPS

✓ **Cumberland.** This new Raspberry is placed upon the market after having been thoroughly tried for a long period of years. It originated some nine years ago with David Miller, a life-long horticulturist and fruit-grower, located near Harrisburg, Pa. It is now offered with the full assurance that it is the most profitable and desirable market variety yet known, because of its immense size, firmness and great productiveness.

✓ **Gregg.** This is decidedly the largest and most prolific black-cap we have seen, and one of the most popular Raspberries in cultivation.

✓ **Kansas.** It is healthy, vigorous and not subject to leaf blight; produces strong, healthy tips; fruit large, as fine a berry as Gregg, and equally as good a shipper; ripens among the earliest; very prolific.

RED VARIETIES

✓ **The New Cardinal.** This wonderful berry is a surprise in the fullness of its merits—its great growth, extreme hardiness, and the exceeding productiveness of its choice red, rich, pure flavored berries. It will thrive where others fail; it will pay; it is not a novelty, but a variety of great merit.

✓ **Cuthbert.** One of the few kinds that may be pronounced perfectly hardy. The canes are tall and vigorous and enormously productive. Berries very large, conical, rich crimson, very handsome, and so firm they can be shipped hundreds of miles by rail without injury. Flavor rich, luscious, best; begins to ripen moderately early and holds until all others are gone.

Loudon. This we believe to be the coming Red Raspberry for market. Such horticulturists and practical men as E. S. Carman, J. H. Hale, George Ellwanger and W. G. Barry, after seeing and testing it, have pronounced it the finest Red Raspberry in existence. It ripens moderately early, and holds out very late; is productive beyond any Red Raspberry known, and a fine shipper.



Cumberland.

BLACKBERRIES

These require the same kind of soil and treatment as raspberries, except that they should be planted in rows 8 feet wide and 4 feet apart in the row. For self-sustaining bushes clip off the points of the growing canes as soon as the plants are about 4 feet high, and repeat the operation several times, until they assume the form of a bush. Mulching is of great advantage to both raspberries and blackberries.

✓ **Ancient Briton.** Upright grower; berry large. An old and reliable variety, which for years has been noted for its hardiness; fruit large, sweet, little to no core. Ripens about midseason.

✓ **Early Harvest.** This is the earliest of Blackberries, and an old and well tried sort. The fruit is of medium size, glossy black, and firmer than any other Blackberry known.

✓ **Erie.** Cane strong; berry large, almost round, of rich quality, handsome and firm. Plant hardy, vigorous and productive, bending its canes with fruit.

✓ **Kittatinny.** Begins to ripen soon after Early Harvest and continues long in bearing; is ripe as soon as black, and is much earlier, sweeter and better in all respects than the majority of Blackberries. The fault is the rust, which sometimes destroy a whole plantation. When it escapes rust the best Blackberry known.

✓ **Lucretia Dewberry.** Fruit very large, luscious and handsome; perfectly hardy, a strong grower and enormously productive; very profitable market fruit. The vines should be allowed to remain on the ground during winter, and be staked up early in the spring.

✓ **Mersereau.** A large, jet black berry; quality strictly first-class; very hardy; an upright grower and an ideal shipper.

✓ **Rathbun.** Plant vigorous, branching, making plenty of fruiting wood, hardy; propagates from the tips of the shoots; heavy bearer. Roots run deep and branch freely, making the plant strong and drouth resisting. Berries very large, measuring about an inch and a half in length and one inch and an eighth in diameter. Color intensely black, with high polish; pips very large; flesh juicy, high flavored, sweet and delicious, without any hard core. Carry well to market, retaining their form and making a handsome appearance.

✓ **Snyder.** Extremely hardy, enormously productive; fruit of medium size, with no hard, sour core; half as many thorns as Kittatinny, and those it has are straight and short; most prolific Blackberry grown; comparatively free from rust; a safe and profitable berry to plant. Has been a standard market berry over a wide range of country for years.



Mersereau.

CURRANTS

Currants should be planted four feet apart in the garden. Sawdust or tanbark should be used as mulch. The Currant flourishes in almost every kind of soil, but to have the fruit in perfection plant in rich, deep soil, and give good annual pruning and cultivation. When plants are grown as stools or bushes the older and feeblower suckers should be cut out. When grown in the form of a bearing good should be thin-tree, with single stem, the ned, and the stem and rot kept free from suckers.



Fay's Prolific

✓ **Cherry.** The largest of all red Currants; berries sometimes more than half an inch in diameter; bunches short; plant very vigorous and productive when grown on good soils and well cultivated.

✓ **Fay's Prolific.** For size, beauty and productiveness the most remarkable red Currant ever grown. A. M. Purdy, of Palmyra, N. Y., says: "We counted over thirty large clusters on a branch received by us measuring 14 inches in length. The berry is fully equal to Cherry Currant, while the flavor is much superior. The stems are double the length on an average, and the fruit hangs on well, never dropping, as in other Currants. We measured bunches 4 and 6 inches long."

✓ **Pomona.** This variety first attracted notice for its enormous productiveness and quality some twenty-three years ago; has been fruited for market eighteen years; plants never offered for sale until this spring. It has the greatest actual acreage yield on record. In one year (1894), the crop of fruit from $6\frac{1}{2}$ acres of Pomona Currants was sold at wholesale for over \$4,076, or over \$627 per acre. In three consecutive years (1892, 1893 and 1894), the fruit from this same $6\frac{1}{2}$ acres of Pomona Currants was sold at wholesale for \$9,000, making over

\$1,384 per acre, or over \$461 per acre per year. In 1892 the fruit from this $6\frac{1}{2}$ acres of Pomona Currants was sold for over \$3,400 per acre, yet of the eighty-three rows making the $6\frac{1}{2}$ acres, nineteen rows were planted in 1887, forty-one rows in 1889, and twenty-three rows in 1890, making the average time these had been planted less than 3 1/5 years, and the sixty rows first planted had borne a heavy crop in 1891. Eighteen years with but one failure, and that in 1895. A heavy crop again in 1896. Plants eighteen years old produced this year more

CURRANTS—Continued

than two gallons each and in 1894 these same plants produced twelve quarts each.

✓ **Red Dutch.** An old, highly esteemed sort, hardy and reliable; fruit medium size, bright red and of best quality. It is well to plant some high priced new kind if you want a pet, but if you want Currants plant Red Dutch.

✓ **White Grape.** Very large, yellowish white, sweet or very mild acid; excellent for the table; the finest of the white sorts; very distinct, having a low, spreading habit and dark green foliage; very productive.

GOOSEBERRIES

✓ **The Bushes** should be planted the same distance apart as currants. They should be annually and rather severely pruned by thinning all feeble and crowded branches. Mulch the same as currants.

✓ **Downing.** Fruit larger than Houghton; roundish, light green, with distinct veins; skin smooth; flesh rather soft, juicy and very good. Vigorous and productive.

✓ **Houghton's Seedling.** A medium-sized American variety, which bears abundant and regular crops, and never mildews; fruit smooth, red, tender and very good; very valuable. No variety has yet been found that gives better satisfaction.

✓ **Pearl.** The most profitable Gooseberry known. Originated by Professor William Saunders of the Experimental Station at Ottawa, Canada. It has been thoroughly tested at nearly all the experimental stations in the United States for the past four years, and reports are unanimous in its favor. It is a wonderful cropper, strong grower, and free from mildew. Fruit one-third larger than Downing.

✓ **Red Jacket.** An American seedling of large size, smooth, prolific and hardy, of best quality. Has been well tested over a wide extent of territory by the side of all the leading varieties, and so far the freest from mildew, both in leaf and fruit, of them all. A wonderful cropper, with bright, clean, healthy foliage.

✓ **Smith's Improved.** Large, oval, light green, with bloom; flesh moderately firm, sweet and good; vigorous grower.

ASPARAGUS

To make a good Asparagus bed the plants may be set in fall or early spring. Prepare a piece of fine, loamy soil, to which has been added a liberal dressing of good manure. Select 2-year or strong 1-year-old plants, and for a garden set in rows 18 to 20 inches apart, with plants 10 to 12 inches apart in the row. Make a small mound of the soil, over which the roots should be evenly spread, so that the crown, when covered, shall be three inches below the surface of the ground. If planted in the fall the whole bed should be covered before winter sets in with two or three inches of coarse stable manure, which may be lightly forked in between the rows as soon as the ground is softened in the spring.

Conover's Colossal. A mammoth variety of vigorous growth, sending up from 15 to 20 sprouts, from 1 to 2 inches in diameter, each year; color deep green; crown very close.

RHUBARB OR PIE PLANT

This deserves to be ranked among the best early vegetables in the garden. It affords the earliest material for pies and tarts, continues long in use, and is valuable for canning. Make the border very rich and deep for this plant.

Linnaeus. Large, early, tender and fine. The very best of all.



American White Elm.

Ornamental Department

The list of Ornamental Trees, Shrubs, Vines and Plants we offer will be found to comprise a sufficient number of kinds that are really valuable, so that our customers may from the list offered secure such a variety as will give full satisfaction. The long list of fancy sorts, mere duplication, is not presented.

ORNAMENTAL TREES

Windbreaks of trees, more especially if they are evergreen, besides being ornamental, make the dwelling warmer, diminishing to no inconsiderable extent the consumption of fuel. They also make the outbuildings warmer for stock by night, and the yard by day, imparting comfort to the animals, and saving a large amount of food.

ASH, White. A rapid-growing native tree of fine, symmetrical outline; a valuable street or park tree, and should be extensively planted for timber, as the demand for it is very great for the manufacture of implements, railway cars, furniture, etc.

BIRCH, Cut-leaved Weeping. An elegant, erect tree, with slender, drooping branches, and finely cut leaves. A magnificent variety, and worthy of a place on every lawn. We know of no more beautiful tree than the Cut-leaved Weeping Birch.

ORNAMENTAL TREES—Continued

BOX ELDER. A fine, rapid-growing tree, with handsome, light green pinnated foliage and spreading head. Very hardy; excellent for avenues.

BEECH, Purple-Leaved (*Fagus purpurea*). A remarkable species, with deep purple foliage, changing to greenish purple in autumn. A very striking contrast with other ornamental trees.

CATALPA. A native of the South. A rapid-growing beautiful tree, with very large heart-shaped leaves and pyramidal clusters of white and purple flowers a foot long. Blooms late in July.

CATALPA Bungei. This, on its own root, is a dwarf Catalpa, a close, compact shrub; it is absolutely healthy and hardy; its branches are numerous and short; the broad leaves lay as shingles on a roof, making a dense shade, and when worked eight or more feet high makes the umbrella shaped top tree equal to, if not more symmetrical, than the Famous Umbrella China Tree of the South; being thus worked it has grown $5\frac{1}{2}$ feet in diameter in two years.

CHESTNUT, American. A well-known forest and nut-bearing tree of great value for ornamental purposes. This tree is now receiving great attention, and is being widely and extensively planted for profit as well as ornament.

ELM, American White. The noble, spreading, drooping tree of our own woods. One of the handsomest and grandest of park or street trees.

Camperdown. Its vigorous, irregular branches have a uniform, weeping habit and overlap so regularly that a compact, roof-like head is formed. Universally pronounced the finest Weeping Elm.

HORSE CHESTNUT. A very beautiful, well-known tree with round, dense head, dark green foliage, and an abundance of showy flowers in early spring.

LINDEN, American. A rapid-growing, beautiful native tree, with very large leaves and fragrant flowers.

MAPLE, Weir's Cut-Leaved. A Silver Maple with remarkable and beautiful dissected foliage. Of rapid growth; shoots slender and drooping, giving it a very graceful and most distinct appearance. Should be in every collection.

Silver-leaved. Of excellent rapid growth, and desirable for immediate effect.

Sugar or Rock. For stately form and fine foliage justly rank among the very best trees grown for lawn and avenue.

MOUNTAIN ASH, European. A fine, hardy tree; head dense and regular, covered from July till winter with large clusters of bright scarlet berries.



Catalpa Bungei.



Teas' Weeping Mulberry.

ORNAMENTAL TREES—Continued

Weeping (Pyrus). A beautiful tree with straggling, weeping branches; makes a fine tree for the lawn; suitable for covering arbors.

MOUNTAIN ASH, Oak-leaved. A variety with large, hoary, lobed leaves; distinct, fine.

MULBERRY, Teas' Weeping Russian (M. Sibirica pendula). A graceful and beautiful hardy tree, forming a perfect umbrella-shaped head, with long, slender, willowy branches, drooping to the ground and gracefully swaying in the wind. Foliage small, lobed and of a delightful, fresh, glossy green. The tree is exceedingly hardy, of rapid growth and abundant foliage. Admirably adapted to cemetery planting, and susceptible of being trained into almost any shape.

Downing. The finest of all the Mulberries, forming a charming shade tree, shapely and compact, long lived, of rapid growth, with profuse deep green foliage. The fruit is very abundant, large, sweet, delicious and refreshing, and borne from July until late in autumn. It is especially desirable for planting in small grounds, furnishing both fruit and shade.

Russian. A small tree of slender growth, producing an abundance of fruit of pinkish white color; very hardy.

TULIP TREE. A native tree of the Magnolia order. Remarkable for its symmetry, rich, glossy foliage, regularly distributed branches and large tulip-like flowers.

EVERGREENS

ARBOR VITAE, American. This plant is, all things considered, the finest Evergreen for hedges. It is very hardy and easily transplanted, few plants failing if properly transplanted specimens are obtained and good care given in their management. It grows rapidly and with little care, or rather by easy management it soon forms a most beautiful hedge, very dense, and perfectly impervious to the sight. It is never adapted to turn stock, but it forms a most desirable and ornamental screen to divide the lawn from other grounds.

Pyramidalis. The most beautiful of all Arbor Vitaes, having dark green compact foliage and remarkably erect form; perfectly hardy.

JUNIPER, Irish. Very erect and tapering in its growth, forming a column of deep green foliage. A pretty little tree or shrub, and a general favorite for its beauty and hardiness.

PINE, Austrian or Black. A remarkably robust, hardy spreading tree; leaves long, stiff, dark green; growth rapid; valuable for this country.

Scotch. Fine, robust, rapid-growing, with stout, erect shoots, and silver-green foliage.

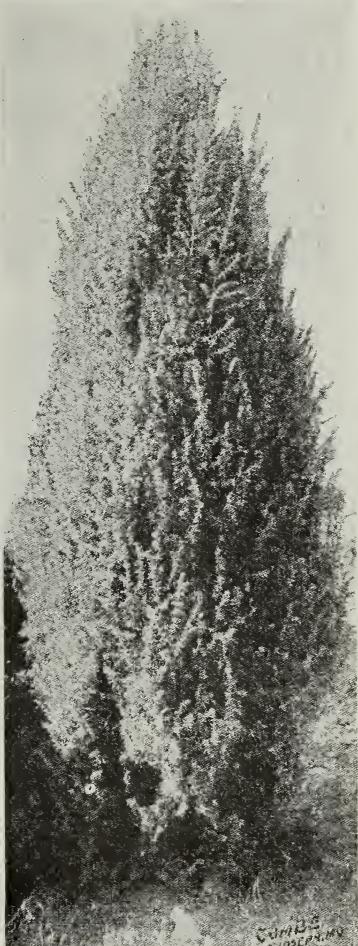
White. The most ornamental of our native Pines. Foliage light, delicate or silvery green; flourishes in poorest soils.

RED CEDAR. About the only Evergreen indigenous to Kansas. Makes a fine ornamental hedge plant; hardy and reliable.

SPRUCE, American White (*Abies alba*). A tall tree, with compact branches and light green foliage.

Colorado Blue (*Picea pungens*). This species has been tested at various points on the prairies of the west and northwest with perfect success, enduring a temperature of 30 degrees below zero, in exposed situations, entirely uninjured. One of the hardiest Evergreens, and the most beautiful in color and outline; foliage of a rich blue or sage color.

Norway. A lofty, elegant tree, of perfect pyramidal habit, remarkably elegant and rich, and, as it ages, has fine, graceful, pendulous branches; exceedingly picturesque and beautiful. One of the best Evergreens for hedges.



Irish Juniper.



Deutzia.

DECIDUOUS SHRUBS

The Care of Shrubbery. Straggling growers should be repeatedly pinched back or clipped during the growing season, to produce a close, compact form. Weigelas and Deutzias should be pruned like currants, leaving the strong young wood to flower. Althaeas and some of the Spiraeas, which bloom on the new shoots, may be pruned back each year to the old wood. A very beautiful hedge can be made by intermingling different flowering shrubs, and clipping or allowing them to grow naturally.

ALTHAEA, or **Rose of Sharon** (*Hibiscus*). These are especially valuable because of their flowering in the fall, when nearly all other shrubs are out of bloom; entirely hardy and easy of cultivation.

Double Purple (*H. purpurea*). Double; reddish purple; fine.

Toton albus. Double white, with pink center.

Variegated-leaved Double Purple. A very showy, distinct kind; leaves variegated with light yellow; flowers double purple.

ALMOND, Dwarf Double Rose-flowering (*Amygdalus*). A beautiful shrub, with small, double, rosy blossoms, closely set upon the twigs before the leaves appear.

Dwarf Double White-flowering (*A. pumila alba*).

CALYCANTHUS, **Sweet-Scented Shrub** or **Allspice**. An interesting shrub, having a rare and peculiar fragrance of wood and flowers; its blooms are abundant, and of peculiar chocolate color.

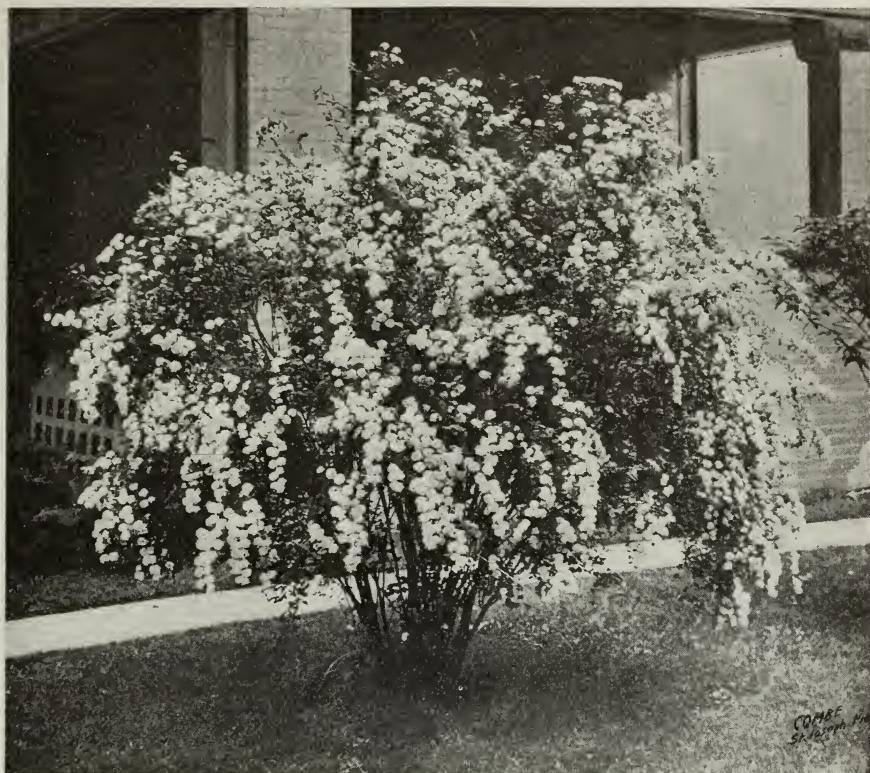
DEUTZIA, **Slender-branches** (*D. gracilis*). A charming species, introduced from Japan by Dr. Siebold; flowers pure white. Fine for pot culture, as it flowers freely at a low temperature in winter.

HYDRANGEA, **Large-clustered**. A fine, large shrub, bearing showy panicles of pink and white flowers in the greatest profusion. It is quite hardy, and is altogether a most admirable shrub for planting singly, or on the lawn in masses.

LILAC, **Common Purple**. One of the hardiest, best shrubs; very well known and popular.

Large-flowering White (*Syringa alba grandiflora*). Has very large, pure white panicles of flowers; considered the best.

PURPLE FRINGE, or **Smoke Tree**. A conspicuous small tree, of spreading habit, covered in midsummer with a profusion of dusky, fringe-like flowers.



Spiraea.

DECIDUOUS SHRUBS—Continued

QUINCE, Japan Scarlet. Bright scarlet flowers in early spring. Makes a beautiful and useful hedge.

SYRINGA. All the species and varieties of the Syringa have white flowers, many of them quite fragrant. Assorted varieties.

SNOWBALL. A well-known favorite shrub, of large size, with numerous globular clusters of very handsome white flowers in June.

SPIRAEA (Meadow Sweet). The Spiraeas are all elegant low shrubs of the easiest culture, and their blooming extends over a period of five months.

Anthony Waterer. A beautiful variety with broad heads of deep pink flowers; grows two to three feet high, making a shapely bush. Blooms almost continuously from June throughout the season.

Prunifolia (Bridal Wreath). Very desirable, having double, daisy-like flowers of pure white in the greatest profusion. Very hardy and in every way desirable, as it keeps in flower a long time.

Thunbergii. Extremely neat and graceful in its habits; dwarfish and rounded; drooping branches; narrow, yellowish green foliage; white flowers; early in spring. One of the best and deserves a place everywhere.

DECIDUOUS SHRUBS—Continued

Van Houtte. The grandest of all the Spiraeas; it is a beautiful ornament for the lawn at any season, but when in flower it is a complete fountain of white bloom, the foliage hardly showing. Clusters of twenty to thirty flat white florets make up the raceme, and these clusters are set close along the drooping stems. Perfectly hardy, and an early bloomer.

Ariaefolia (White Beam Tree-leaved Spiraea). An elegant species from northwest America; habit dense and bushy; plant entirely covered with greenish-white blossoms in June.

WEIGELA, Rosea. An elegant shrub, with fine, rose-colored flowers. Quite hardy; blossoms in May.

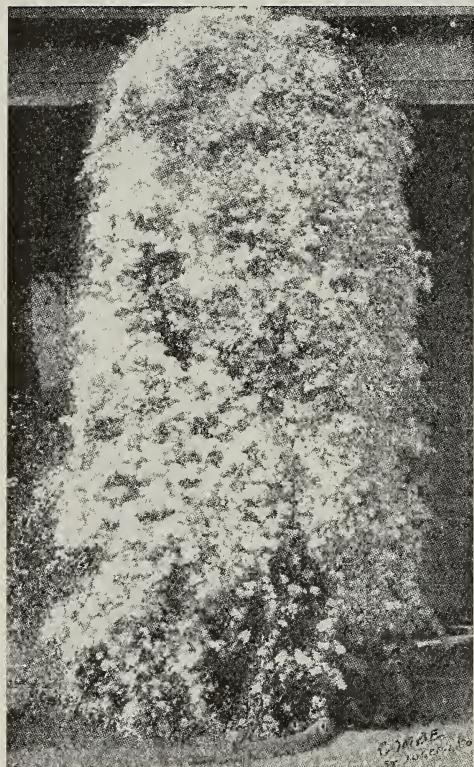
WHITE FRINGE (*Chionanthus Virginica*). One of the best small trees, with superb foliage, and fragrant, fringe like, white flowers. Exceedingly graceful.

DECIDUOUS HEDGE PLANTS

HONEY LOCUST. Very hardy and desirable for the north. Foliage fine and fern-like.

OSAGE ORANGE. Highly esteemed in the west and south; not hardy enough for the northern States.

HARDY CLIMBING AND TRAILING SHRUBS



Clematis.

AMPELOPSIS Veitchii (Boston Ivy). Foliage smaller than in the American and more dense, forming a sheet of green. The plant is a little tender while young, and should be protected the first winter. When once established it grows rapidly and clings to a wall or fence with the tenacity of ivy. The foliage changes to crimson-scarlet in autumn, and is very beautiful for covering walls, stumps of trees, rockeries, etc.; for ornamentation of brick and stone structures it has no equal.

BIGNONIA Radicans, or Scarlet Trumpet Flower. A splendid climber, vigorous and hardy, with clusters of large, trumpet-shaped, scarlet flowers in August.

CLEMATIS. The different varieties and species of Clematis now in cultivation are of the highest beauty and utility. They vary greatly in their foliage and flowers, and are adapted to various uses.

HARDY CLIMBING AND TRAILING SHRUBS

Continued

Henryii. Fine, large, pure white flowers; one of the best long bloomers.

Jackmanni. A very profuse blooming variety, with flowers from 4 to 6 inches in diameter, of an intense violet-purple color, borne successionaly in continuous masses on the summer shoots.

Paniculata. This valuable native of Japan has, after a thorough trial of several years, proved entirely hardy. The deep, clear green foliage is unusually broad and healthy, and remarkably free from all insect enemies. The flowers are pure white, from three-quarters of an inch to an inch in diameter, star shaped, with a most pleasing and penetrating fragrance. They are borne in heads on stiff stems 4 to 6 inches long, from the axils of the leaves. For any situation where a rapid-growing climber is needed, this will be found a very valuable plant.

HONEYSUCKLE, Hall's Japan. A strong, vigorous, evergreen variety, with pure white flowers, changing to yellow; very fragrant; covered with flowers from June to November.

Monthly Fragrant or Dutch (*Lonicera Belgica*). Blooms all summer; very sweet.

Yellow Trumpet (*L. aurea*). A well-known variety, with yellow trumpet flowers.

WISTARIA (Chinese). A most beautiful climber of rapid growth, producing long, pendulous clusters of pale blue flowers. When well established makes an enormous growth. It is very hardy, and one of the most superb vines ever introduced.

HERBACEOUS PAEONIES.

These are beautiful, showy, and easily cultivated plants, blooming from the beginning of May to the end of July. They should have a place in every garden. A selection will give a continuous bloom for three months. We offer the best sorts, varying from pure white, straw color, salmon, flesh color and blush to lilac and deep rose.



Paeonies.

YUCCA, SPANISH BAYONET

These have a grand appearance. The stem is 3 feet above the ground, covered with large bell-shaped flowers on laterals, forming a perfect pyramid.

Filamentosa (Adam's Needle). Thread-leaved, creamy white, 3 to 4 feet. July.



American Beauty.

ROSES

HYBRID PERPETUALS, or REMONTANTS

This group comprises, for the most part, the Roses for the multitude. They are mostly hardy, vigorous, and easy of culture. As a general rule, they thrive best in well prepared loam. Close pruning is generally required, but should be regulated to some extent by the rate of growth of each variety, those of vigorous habit not requiring to be cut back so much as those of slower growth. The flowers range from purest white to deepest crimson, with intermediate shades of pink, blush, cherry, carmine and peach. The term "Perpetual" may lead some to think that they are as constant bloomers as the Everblooming Roses. This is not the case. They flower freely in June, and at short intervals during the summer and fall.

Remedy for Mildew. Mildew is, perhaps, the most injurious Rose disease. It is generally caused by extremes of heat and cold, and by long-continued damp, cloudy weather. The best remedies are sulphur and soot; one of these should be applied the moment the disease makes its appearance. It is a good plan to sprinkle the plants with water, so that the substance applied will adhere.

American Beauty. A strong, vigorous grower and free bloomer; deep crimson or red; very large; peculiarly sweet-scented.

Anne de Diesbach. One of the best and most satisfactory Hybrid Perpetual Roses. A strong, vigorous grower; extremely hardy; producing very large, double flowers of a lovely shade of carmine, and delightfully fragrant.

ROSES—Continued

Barrone de Maynard. Pure white, medium in size; double, free-blooming.

Clio. Flowers large, of fine globular form, flesh-color shaded in the center with rosy pink; growth vigorous; handsome foliage. One of the best roses. Budded plants.

Coquette des Alps. One of the finest pure white Hybrid Perpetuals; large, full, finely formed flower; color pure white, sometimes faintly tinged with pale blush; profuse bloomer.

Coquette des Blanches. Pure white; very beautiful. We think this one of the best pure "whites."

Dorothy Perkins. The newest and one of the best of the Rambler Roses. Among a great many hybridized seedlings of the Rose Wichuriana crossed with the H. P. Rose, Mme. Gabriel Luizet, we obtained the above Rose. In the important point of hardiness nothing more could be desired; two unusually severe winters failed to injure even young plants in the least, although during one of them the temperature went as low as twenty degrees below zero and there was not the usual snowfall to protect them. The flowers are of large size for this class of Rose, usually two inches across; are borne in clusters of from thirty to forty, and on our field plants we have often counted fifty and sixty; are also very double. The petals are very prettily rolled back and crinkled; the buds are remarkably handsome, being pointed in shape and of just right size for the buttonhole. The color is a most beautiful clear shell-pink and holds a long time without fading; even after the flower commences to fade the color is still pleasing, being then a lovely deep rose. The flowers are very sweetly scented, a characteristic not possessed by most other roses of the Rambler family. In vigor and habit of growth the "Dorothy Perkins" is identical with the Crimson Rambler. A number of florists who have seen the "Dorothy Perkins" believe it will be a great acquisition for forcing and decorative purposes.

Dinsmore. Flowers freely the whole season; blooms large, crimson. Highly esteemed.

Earl of Dufferin, vig. (A. Dickson & Sons, 1887), Rich brilliant velvety crimson, shaded with dark maroon; large, full, finely formed; delightful fragrance. A vigorous grower. One of the finest dark roses. It should be in every collection. Budded plants.

Frau Karl Druschki. This is an exquisite new, pure white rose. To say it pleases everyone is putting it mildly, for, in fact, it charms all. It is without doubt entirely hardy, a good grower, producing long buds and large pure white flowers. It is a profuse bloomer and blooms along during the summer until stopped by frost, which we can vouch for.

General Jacqueminot. Brilliant crimson-scarlet; very showy and effective; good grower, free bloomer; one of the most popular Roses. Especially valued for its very large and elegant buds.

General Washington. Brilliant rosy carmine, large and double; a vigorous grower and generous bloomer.

Hermosa. An old, excellent and very popular Rose; blooms in fine clusters; large, very double and fragrant; color a beautiful clear rose; a constant bloomer; hardy; one of the best. Popular now, and beautiful, as in the days of our grandmothers.

Kaiserin Augusta Victoria. (Hybrid Tea). Valuable for open ground culture. A strong and early grower that is nearly as hardy as any of the hybrid perpetual kinds. Blooms continuously from Spring until Fall. Buds pointed, flowers large, full and double, elegant snowy white color; very fragrant.

La France. Beautiful pale peach, more highly flushed at center; equal in delicacy to the Teas, and greatly surpasses the Tea Rose in hardiness. Very large and full, highly perfumed and handsome Rose; none is more profuse in blooming.



Margaret Dickson.

ROSES—Continued

Madame Charles Wood. Flowers large; color dazzling crimson; a constant bloomer.

Marshall P. Wilder. Flowers very large, perfectly double, and of good substance; color bright cherry red, shading to crimson; plant a clean, healthy grower, and a very free bloomer.

Margaret Dickson, vig. (A Dickson & Sons, 1891.) Of magnificent form; white, with pale flesh center; petals very large, shell-shaped, and of great substance; fragrant, a fine variety; foliage very large; dark green.

Paul Neyron. Deep rose; very large, very full, somewhat fragrant; free-blooming; the largest variety known. Words fail to do it exact justice.

Prince Camille de Rohan. Very dark, rich velvety crimson, passing to intense maroon, shaded black; large, full flowers. One of the darkest, most desirable Roses, and very handsome.

MOSS ROSES

Countess of Murinais. White, slightly tinged with flesh. The best white Moss.

Crested Moss. Deep pink buds, surrounded with mossy fringe and crest; fragrant. One of the best.

Glory of Mosses. Pale rose; very large, full and beautiful.

Luxembourg. Large, cupped; fine purplish-crimson; luxuriant in growth and bloom.

Perpetual White. Pure white; produces very few flowers.

CLIMBING ROSES

These are admirably adapted for covering walls, trellises, old trees, unsightly buildings, etc. Their rapid growth, perfect hardiness, luxuriant foliage and immense clusters of beautiful flowers commend them at once to everyone.

Crimson Rambler. This remarkable Rose was originally received from Japan. The plant is of vigorous growth, making shoots of from 8 to 10 feet high in a season, and is, therefore, a most desirable climbing variety, though it also may be grown in bush form. The flowers hold their beautiful crimson color a long time without fading, and give a most magnificent effect in contrast to the bright, glossy foliage. Is entirely hardy, and the greatest acquisition among Roses for the past ten years.

Yellow Rambler (Aglaia). This is a very notable introduction, in the fact that it is the only yellow climbing Rose with any degree of hardiness. It is a worthy companion to Crimson Rambler, belonging to the same family, and much resembling it in manner of blooming, growth, etc. The flowers are borne in the same immense trusses, frequently 100 to 120 in a cluster. They are a decided yellow, cup shaped, very fragrant, and last a long time without fading.

Baltimore Belle. Fine white, with blush center; very full and double.

Greville or Seven Sisters. Large clusters of bloom, shaded to dark red.

Queen of the Prairies. Bright rose color, large, compact and globular; a very profuse bloomer. One of the best.

MISCELLANEOUS ROSES

Mad. Plantier (Hybrid China). Pure white, above medium size, full, flat form. A spring bloomer; very strong, rich, and handsome; of vigorous growth; excellent for massing or hedges.

Persian Yellow. Deep golden yellow flowers; double and very fine and beautiful.

Tree Roses, in variety. These beautiful novelties are without question the most pleasing and beautiful of anything ever offered in the Rose line. There is nothing in the history of horticulture that is more beautiful than the Tree Rose. We import them direct from the very best Holland growers, and our stock is exceptionally strong and fine.



DISTANCES APART TO SET TREES AND PLANTS

Standard Apples.....	25 to 30 feet apart each way
Standard Pears and strong-growing Cherries.....	20 feet apart each way
Duke and Morello Cherries.....	18 feet apart each way
Peaches, Apricots and Nectarines.....	16 to 18 feet apart each way
Dwarf Pears.....	10 to 12 feet apart each way
Dwarf Apples.....	10 to 12 feet apart each way
Quinces	10 to 12 feet apart each way
Grapes.....	rows 10 to 16 feet apart; 7 to 16 feet in rows
Currants and Gooseberries.....	4 feet apart
Raspberries and Blackberries.....	3 to 4 by 5 to 7 feet
Strawberries for field culture.....	1 by 3 to 3½ feet
Strawberries for garden culture.....	1 to 2 feet apart

NUMBER OF TREES OR PLANTS REQUIRED PER ACRE
AT THE FOLLOWING DISTANCES

3 by 3 feet....	4,800 trees or plants	17 by 17 feet....	150 trees or plants
4 by 4 feet....	2,722 trees or plants	18 by 18 feet....	134 trees or plants
5 by 5 feet....	1,744 trees or plants	19 by 19 feet....	120 trees or plants
6 by 6 feet....	1,210 trees or plants	20 by 20 feet....	108 trees or plants
7 by 7 feet....	888 trees or plants	21 by 21 feet....	98 trees or plants
8 by 8 feet....	680 trees or plants	22 by 22 feet....	90 trees or plants
9 by 9 feet....	534 trees or plants	23 by 23 feet....	82 trees or plants
10 by 10 feet....	435 trees or plants	24 by 24 feet....	75 trees or plants
11 by 11 feet....	360 trees or plants	25 by 25 feet....	69 trees or plants
12 by 12 feet....	302 trees or plants	26 by 26 feet....	64 trees or plants
13 by 13 feet....	257 trees or plants	27 by 27 feet....	59 trees or plants
14 by 14 feet....	222 trees or plants	28 by 28 feet....	55 trees or plants
15 by 15 feet....	193 trees or plants	29 by 29 feet....	51 trees or plants
16 by 16 feet....	170 trees or plants	30 by 30 feet....	48 trees or plants

INDEX

Page	Page
Apples	5-9
Apples, Crab	9
Apricots	19-20
Asparagus	27
Blackberries	25
Cherries	13-14
Currants	26
Deciduous Shrubs	32-34
Evergreens	31
Gooseberries	27
Grapes	21-22
Hardy Climbing and Trailing Shrubs	34-35
Hedge Plants, Deciduous	34
Nectarines	20
Ornamental Trees	28-30
Peaches	16-19
Pears	10-12
Plums	14-15
Quinces, Select	20
Raspberries	24
Remarks	2-3-4
Rhubarb or Pie Plant	27
Roses	36-38
Strawberries	23
To Our Patrons	1
Yucca (Spanish Bayonet)	35

SPRAYING

We give the following brief directions as to how and when to spray. More complete directions can be obtained by consulting standard works on horticulture.

Experience has demonstrated the fact that spraying, properly done at the proper time, for protection against destructive insects, rot, fungus and blight, is the best if not the only sure remedy against these enemies of the horticulturist. That it has succeeded and will succeed is evidenced by the rapidly increasing interest manifested in the manufacture, sale and use of spraying machines, and the good results obtained by those who have practiced this mode of protection.

WHEN TO SPRAY

APPLE TREES. For prevention of leaf blight spray as soon as the leaves are full grown with Bordeaux mixture or ammoniacal carbonate of copper. To destroy aphis or plant lice spray with kerosene emulsion as soon as the pests appear. To destroy the codding moth, canker worm and curculio spray with paris green or London purple $\frac{1}{4}$ pound in 40 to 50 gallons of water soon after the blossoms fall, and again in two weeks later. To destroy the web worm spray with London purple or kerosene emulsion about August 1 to 10, or as soon as the pests appear. This application should be made during the middle of the day, when the worms are out of their webs and feeding on the leaves.

FORMULAS

KEROSENE EMULSION. In making kerosene emulsion for spraying trees for lice be sure and follow the correct method: Dissolve in two quarts of water one quart of soft soap, or one-fourth pound of hard soap, by heating to the boiling point. Then add one pint of kerosene oil and stir violently for from three to five minutes. This may be done by using a common force pump and putting the end of the hose back into the mixture again. This mixes the oil permanently, so that it will never separate, and it may be diluted easily at pleasure. This mixture should be diluted to twice its bulk with water, or about fourteen times as much water as kerosene. The kerosene emulsion is successful in destroying cattle lice and sheep ticks, as well as all varieties of plant lice.

BORDEAUX MIXTURE. Six pounds of sulphate of copper are dissolved in six gallons of water. In another vessel four pounds of fresh lime are slaked in six gallons of water. After the latter solution has cooled slowly turn it into the other solution and add ten gallons of water. This, when all is thoroughly mixed and strained, is ready for use. In straining this mixture reject all the lime sediment, using only the clear liquid. Strain the whitewash through a coarse gunny sack stretched over the head of a barrel.

TO OUR CUSTOMERS

Is the nurseryman behind the times? A few comparisons make us think so. You will find but a few items that there is any change in the prices, but see the great changes in other things—farm products and other things: hogs, cattle, horses, grain, lands, help, in fact, everything that goes into making up a tree or shrub, while nursery stock has remained about the same, and it has forced many out of the business. With our lands and superior equipment we are growing some of the finest stock in the United States, and we assure the planted when he places an order with us it will receive our personal attention and the best stock that can be grown.



Moore's Early
See Page 22

Champion Early, Leading Market Grape
See Page 21



STRAWBERRIES.
See Page 23